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PTO/SB/05 (4/98)  
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<b>UTILITY PATENT APPLICATION TRANSMITTAL</b> <small>(Only for new nonprovisional applications under 37 C.F.R. § 1.53(b))</small>	Attorney Docket No.
	First Inventor or Application Identifier <b>LADD ANDERSON</b>
	Title <b>HOSE MANAGEMENT/CONTAMINATION BARRIER DEVICE</b>
	Express Mail Label No.

<b>APPLICATION ELEMENTS</b> <small>See MPEP chapter 600 concerning utility patent application contents.</small>	<b>ADDRESS TO:</b> Assistant Commissioner for Patents Box Patent Application Washington, DC 20231
1. <input checked="" type="checkbox"/> * Fee Transmittal Form (e.g., PTO/SB/17) <small>(Submit an original and a duplicate for fee processing)</small> 2. <input checked="" type="checkbox"/> Specification [Total Pages <b>13 SPEC 2 CLAIM 15 TOT.</b> ] - Descriptive title of the invention - Cross References to Related Applications - Statement Regarding Fed sponsored R & D - Reference to Microfiche Appendix - Background of the invention - Brief Summary of the invention - Brief Description of the Drawings (if filed) - Detailed Description - Claim(s) - Abstract of the Disclosure 3. <input checked="" type="checkbox"/> Drawing(s) (35 U.S.C. 113) [Total Sheets <b>7</b> ] 4. Oath or Declaration [Total Pages <b>5</b> ] a. <input checked="" type="checkbox"/> Newly executed (original or copy) b. <input type="checkbox"/> Copy from a prior application (37 C.F.R. § 1.63(d)) <small>(for continuation/divisional with Box 16 completed)</small> i. <input type="checkbox"/> DELETION OF INVENTOR(S) Signed statement attached deleting inventor(s) named in the prior application, see 37 C.F.R. §§ 1.63(d)(2) and 1.33(b).	5. <input type="checkbox"/> Microfiche Computer Program (Appendix) 6. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary) a. <input type="checkbox"/> Computer Readable Copy b. <input type="checkbox"/> Paper Copy (identical to computer copy) c. <input type="checkbox"/> Statement verifying identity of above copies
<b>ACCOMPANYING APPLICATION PARTS</b>	
7. <input type="checkbox"/> Assignment Papers (cover sheet & document(s)) 8. <input type="checkbox"/> 37 C.F.R. § 3.73(b) Statement of Power of Attorney (when there is an assignee) 9. <input type="checkbox"/> English Translation Document (if applicable) 10. <input type="checkbox"/> Information Disclosure Statement (IDS)/PTO-1449 11. <input type="checkbox"/> Preliminary Amendment 12. <input type="checkbox"/> Return Receipt Postcard (MPEP 503) (Should be specifically itemized) 13. <input type="checkbox"/> * Small Entity Statement filed in prior application, (PTO/SB/09-12) Status still proper and desired 14. <input type="checkbox"/> Certified Copy of Priority Document(s) (if foreign priority is claimed) 15. <input type="checkbox"/> Other:	
<b>* NOTE FOR ITEMS 1 &amp; 13: IN ORDER TO BE ENTITLED TO PAY SMALL ENTITY FEES, A SMALL ENTITY STATEMENT IS REQUIRED (37 C.F.R. § 1.27), EXCEPT IF ONE FILED IN A PRIOR APPLICATION IS RELIED UPON (37 C.F.R. § 1.28).</b>	

16. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No: \_\_\_\_\_

Prior application information: Examiner \_\_\_\_\_ Group / Art Unit: \_\_\_\_\_

**For CONTINUATION or DIVISIONAL APPS only:** The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 4b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

**17. CORRESPONDENCE ADDRESS**

☐ Customer Number or Bar Code Label \_\_\_\_\_ or ☒ Correspondence address below

(Insert Customer No. or Attach bar code label here)

Name	<b>LADD ANDERSON</b>				
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City	<b>SLE</b>	State	<b>UT</b>	Zip Code	<b>84124</b>
Country	<b>USA</b>	Telephone	<b>801-272-7007</b>	Fax	

Name (Print/Type)	<b>LADD ANDERSON</b>	Registration No. (Attorney/Agent)	
Signature	<i>[Signature]</i>	Date	<b>09/27/00</b>

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# FEE TRANSMITTAL for FY 2000

Patent fees are subject to annual revision.  
Small Entity payments must be supported by a small entity statement,  
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See 37 C.F.R. §§ 1.27 and 1.28.

TOTAL AMOUNT OF PAYMENT (\$)

## Complete If Known

Application Number

Filing Date

First Named Inventor

LADD ANDERSON

Examiner Name

Group / Art Unit

Attorney Docket No.

## METHOD OF PAYMENT (check one)

1. ☐ The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to:

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Number

Deposit  
Account  
Name

☐ Charge Any Additional Fee Required  
Under 37 CFR §§ 1.13 and 1.17

2. ☐ Payment Enclosed:

☒ Check ☐ Money Order ☐ Other

## FEE CALCULATION

### 1. BASIC FILING FEE

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
101	690	201	345	Utility filing fee	345
106	310	206	155	Design filing fee	
107	480	207	240	Plant filing fee	
108	690	208	345	Reissue filing fee	
114	150	214	75	Provisional filing fee	

SUBTOTAL (1) (\$)

### 2. EXTRA CLAIM FEES

		Extra Claims		Fee from below		Fee Paid
Total Claims	<input type="text"/>	-20**	= <input type="text"/>	X	<input type="text"/>	<input type="text"/>
Independent Claims	<input type="text"/>	-3**	= <input type="text"/>	X	<input type="text"/>	<input type="text"/>
Multiple Dependent	<input type="text"/>				<input type="text"/>	<input type="text"/>

\*\*or number previously paid, if greater; For Reissues, see below

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
103	18	203	9	Claims in excess of 20	
102	78	202	39	Independent claims in excess of 3	
104	260	204	130	Multiple dependent claim, if not paid	
109	78	209	39	** Reissue independent claims over original patent	
110	18	210	9	** Reissue claims in excess of 20 and over original patent	

SUBTOTAL (2) (\$) 345.00

## FEE CALCULATION (continued)

### 3. ADDITIONAL FEES

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
105	130	205	65	Surcharge - late filing fee or oath	
127	50	227	25	Surcharge - late provisional filing fee or cover sheet	
139	130	139	130	Non-English specification	
147	2,520	147	2,520	For filing a request for reexamination	
112	920*	112	920*	Requesting publication of SIR prior to Examiner action	
113	1,840*	113	1,840*	Requesting publication of SIR after Examiner action	
115	110	215	55	Extension for reply within first month	
116	380	216	190	Extension for reply within second month	
117	870	217	435	Extension for reply within third month	
118	1,360	218	680	Extension for reply within fourth month	
128	1,850	228	925	Extension for reply within fifth month	
119	300	219	150	Notice of Appeal	
120	300	220	150	Filing a brief in support of an appeal	
121	260	221	130	Request for oral hearing	
138	1,510	138	1,510	Petition to institute a public use proceeding	
140	110	240	55	Petition to revive - unavoidable	
141	1,210	241	605	Petition to revive - unintentional	
142	1,210	242	605	Utility issue fee (or reissue)	
143	430	243	215	Design issue fee	
144	580	244	290	Plant issue fee	
122	130	122	130	Petitions to the Commissioner	
123	50	123	50	Petitions related to provisional applications	
126	240	126	240	Submission of Information Disclosure Stmt	
581	40	581	40	Recording each patent assignment per property (times number of properties)	
146	690	246	345	Filing a submission after final rejection (37 CFR § 1.129(a))	
149	690	249	345	For each additional invention to be examined (37 CFR § 1.129(b))	

Other fee (specify) \_\_\_\_\_

Other fee (specify) \_\_\_\_\_

\*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$)

## SUBMITTED BY

Name (Print/Type)

LADD ANDERSON

Registration No.  
(Attorney/Agent)

Complete (if applicable)

Telephone

801-272-7007

Signature

[Signature]

Date

09/22/00

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**STATEMENT CLAIMING SMALL ENTITY STATUS  
(37 CFR 1.9(f) & 1.27(b))--INDEPENDENT INVENTOR**

Docket Number (Optional)

Applicant, Patentee, or Identifier: LADD ANDERSON

Application or Patent No.: \_\_\_\_\_

Filed or Issued: \_\_\_\_\_

Title: HOSE MANAGEMENT/CONTAMINATION BARRIER DEVICE

As a below named inventor, I hereby state that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees to the Patent and Trademark Office described in:

- ☒ the specification filed herewith with title as listed above.  
☐ the application identified above.  
☐ the patent identified above.

I have not assigned, granted, conveyed, or licensed, and am under no obligation under contract or law to assign, grant, convey, or license, any rights in the invention to any person who would not qualify as an independent inventor under 37 CFR 1.9(c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

Each person, concern, or organization to which I have assigned, granted, conveyed, or licensed or am under an obligation under contract or law to assign, grant, convey, or license any rights in the invention is listed below:

- ☒ No such person, concern, or organization exists.  
☐ Each such person, concern, or organization is listed below.

Separate statements are required from each named person, concern, or organization having rights to the invention stating their status as small entities. (37 CFR 1.27)

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

LADD ANDERSON  
NAME OF INVENTOR

NAME OF INVENTOR

NAME OF INVENTOR

[Signature]  
Signature of inventor

Signature of inventor

Signature of inventor

09/22/00  
Date

Date

Date

1 TITLE OF INVENTION:

2 HOSE MANAGEMENT/CONTAMINATION BARRIER DEVICE

3 CROSS REFERENCE TO RELATED APPLICATIONS:

4 Not applicable.

5 STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR

6 DEVELOPEMENT:

7 Not applicable.

8 REFERENCE TO MICROFICHE APPENDIX:

9 Not applicable.

10 BACKGROUND OF INVENTION:

11 1. Field of the Invention:

12 The present invention relates to the management of flexible  
13 hose, flexible hose storage reels, and to flexible hose and  
14 storage reel accessories. More specifically, the present  
15 invention relates to the reduction of the potential for operator  
16 exposure to chemical and other contaminants which may be  
17 conveyed via hose casings to hose storage reel device operators  
18 as they hand-feed flexible hoses back onto storage reels during  
19 the hose retraction process. The present invention further  
20 relates to improving the hose reel operator's ability to more  
21 safely, efficiently and accurately direct flexible hose onto the  
22 storage reel during the retraction process.

23 2. Related Art:

1        Certain application industries, particularly liquid and/or  
2        compressed gas application industries, i.e., those that involve  
3        the delivery of hose-conveyed and/or hose-dispensed liquids,  
4        solids and/or gases, a list of examples might include but shall  
5        in no way be construed to be limited to pesticide applications,  
6        commercial weed control and other herbicide applications, liquid  
7        lawn treatment applications, carpet cleaners, high pressure  
8        cleaners, compressed gas, solvent and lubrication applications,  
9        airport power washers and de-icing equipment, sand blasters,  
10       industrial painters, detergent applicators, pressure lubricating  
11       equipment operations, firefighters, and other service,  
12       manufacturing, application and delivery industries, depend upon  
13       the deployment and retraction of flexible hose during the course  
14       of their respective delivery processes. These hoses are often  
15       and typically deployed at the delivery site from storage reels  
16       and retrieved back onto those reels when the application process  
17       is complete.

18       During the hose retrieval process in manual applications,  
19       the operator usually activates the winding feature of the reel,  
20       whether motor switch or manual crank, with one hand while using  
21       the other hand to direct the inbound hose back  
22       onto the reel. It is primarily during the retrieval process  
23       that the present device provides the greatest protection and

1 utility by diminishing the potential for a contaminated hose  
2 casing to contact the operator's hands, gloves and clothing.

3 3. Prior Art:

4 There are U.S. Patents relating to flexible hose management  
5 via storage reels, i.e. Pat. Nos. 2,738,143; 2,906,472;  
6 3,176,931, as well as patents on hose design and hose end  
7 attachments and application devices. However, no single,  
8 similar device is known to have ever been designed to address  
9 the specific needs, concerns, purposes, innovations, safety  
10 applications, or degree of simplicity and economy as the device  
11 described herein. Consequently, the inventor has been unable to  
12 discover any related or prior patent art of any kind.

13 SUMMARY OF THE INVENTION:

14 The principal object, and not to be construed as an only  
15 object, of the present invention is to reduce the potential for  
16 operator exposure to chemical residues, fertilizers, animal  
17 excrement, herbicides, and any other known or unknown  
18 contaminant in residence at an application/delivery environment,  
19 or resulting from the application process, may be caused to  
20 accumulate on the casing of a flexible hose as it is  
21 dragged over or through a contaminated surface, over-sprayed,  
22 contaminated by a leak in the hose itself, or otherwise  
23 saturated with potentially harmful chemicals, biological

1 hazards, abrasives, or any other known or unknown contaminant  
2 which may accumulate on the hose case during the dispensation,  
3 retrieval and/or manipulation of the hose during the  
4 application/delivery process.

5 Another object of the present invention is to provide the  
6 operator a mechanically safe, effective, inexpensive means of  
7 guiding flexible hose back onto the storage reel with an  
8 improvement of ease, control and accuracy over other known  
9 methods, and to otherwise and generally manage the hose more  
10 effectively in the respective environment.

11 A further object of the present invention is to provide  
12 operators and applicators with a more effective means of  
13 changing, as is frequently necessary, the direction at which  
14 retractable hose is fed onto the reel; e.g., by bracing the  
15 installed device against the angle of resistance, an inbound  
16 hose can be better directed and controlled onto the reel at the  
17 more preferred angle (see Detailed Description of Drawings  
18 **FIG.4**).

19 Yet another object of the present invention is to provide a  
20 mechanical means by which the operator can assist motor-  
21 powered hose retraction devices, in that it provides mechanical  
22 means by which an operator, by camming the opposing inside ends  
23 of the installed device against the hose, may create friction

1 points whereby he can physically push the hose toward the reel  
2 during the hose retraction process, release the device to a  
3 position parallel with the tensioned hose, draw the device back  
4 to the original position and repeat. A mechanical assist is  
5 thereby provided whereby the operator can help a motor-powered  
6 or hand powered retraction device overcome the effects of  
7 inertia,  
8 friction and drag that so frequently encumber the hose  
9 retraction process.

10 The inside diameter of the preferred embodiment is  
11 relatively and uniformly larger at its ends, diminishing and  
12 tapering toward the center. The feature serves to (1) funnel  
13 the hose and fittings into the device at either end with less  
14 friction and (2) create a uniform, non-biting inside radius, on  
15 the occasion the device is used as a direction change for  
16 traveling hose as described in **FIG.4.**

17 It is also an object of the present invention to provide  
18 such a device via simple, inexpensive construction, so as to  
19 avail these objectives to commercial, professional and  
20 domestic consumers at reasonable cost.

21 The foregoing objectives can be accomplished by providing  
22 the hose management/contamination barrier device described  
23 herein.



BRIEF DESCRIPTION OF DRAWINGS:

Refer now to **FIG.1**, which represents a preferred embodiment in accordance with the present invention.

**FIG.2** represents a fragmented view of either end of the preferred embodiment represented in **FIG.1**.

**FIG.3** represents a fragmented view of a more thickly-walled and equally preferred embodiment variation of the embodiment represented in **FIG.1**, permitting beveling or rounding of the inside radii at its ends in lieu of and achieving the benefits of the flared ends depicted in **FIG.1**. **FIG.4** represents a top view of an operator using an embodiment of the device in one of its typical applications.

**FIG.5** describes the device in a user's hand in its typical orientation to the hose **1** contained therein.

**FIG.6** describes the device in a user's hand in an attitude that creates the braking/mechanical assist friction points **2** advantage of the device.

**FIG.7** and **FIG.8** describe the mechanics of how the device can be used as a brake via the friction points or as an assistance to push sections of hose toward the reel during the hose retrieval process, returned to parallel and the original position and repeated as necessary, thereby providing assistance to the take up mechanism of the reel, whether that

1 mechanism be powered by engine, motor, or manually.

2 **FIG.9** and **FIG.10** provide side views of the preferred  
3 embodiments of the present invention, suggesting how a tensioned  
4 hose is contained within the device by the offset installation  
5 and removal slot.

6 **FIG.11** and **FIG.12** describe a hinged or hinge-like  
7 embodiment wherein the device opens, installs on the hose, and  
8 closes around and contains the hose via hinge or hinge-like  
9 molding.

10 **FIG.13** and **FIG.14** describe one of the possible milling or  
11 molding variations for the installation slot described in **FIGS.**  
12 **1,2,3** and **8**.

13 DETAILED DESCRIPTION:

14 As shown in the drawings, the hose management/contaminant  
15 barrier device in accordance with the preferred embodiment of  
16 the present invention includes the formation by machining,  
17 molding, milling, injection molding, or formation by other means  
18 of suitable material(s), including but not construed to be  
19 limited to: injection molded and/or molded and/or milled or  
20 otherwise formed or fabricated plastic, metal, nylon, poly-  
21 vinyl chloride (PVC), acrylonitrile-butadiene-styrene (ABS), or  
22 any other type of sufficiently rigid material into an open-sided  
23 sleeve that is flared, the inside of which is inwardly tapered,

1 and/or rounded or beveled at the inside of either end. The  
2 inside diameter may but not necessarily funnel gradiently and  
3 radially toward the center, the inside diameter at that point  
4 dependent upon the diameter of hose the particular model is  
5 being designed to address, as are the overall length, inside  
6 diameters and other dimensions of the device.

7 Variations in the preferred embodiment of the present  
8 invention may be necessary so as to accommodate specific hose  
9 flexibility and diameter, specific chemical resistance  
10 requirements, degree of user protection and friendliness  
11 requirements, economy of production considerations, some  
12 exemplary descriptions of which are represented in **FIGS.1,9,**  
13 **10,11,13,14.**

14 As suggested in **FIGS.1,2,3,** the inside ends of the present  
15 invention may be flared **1**, radially funneled toward the center  
16 and/or rounded or beveled **2** to assist in the shedding of hose  
17 casing residues away from the operator's hand or glove during a  
18 hose management process, e.g. the hose retraction process  
19 depicted in **FIG.4,** as well as to channel  
20 the hose into the device under less friction and potential for  
21 snagging than might be expected from other embodiments of the  
22 same device with less finished or non-funneling inside edges.

23 The more acute ends of the installation slot **4** in **FIGS.**

1 **1,2,3** needn't be finished. They are, however, rounded in the  
2 preferred embodiments in the interest of operator safety and the  
3 minimization of the potential for hose damage, snagging and/or  
4 the potential for fitting hang up due to an exposed corner or  
5 edge, particularly relevant to applications wherein it is  
6 specified that the device be fashioned or milled from metal.

7 The installation slot in the hose management  
8 device/containment device described in **3** in **FIGS. 1,2,3** and  
9 further depicted in **FIGS.9,10,11,13,14** shall be of a width  
10 sufficient to install the device on to the various hose  
11 diameters that the differing models may be designed to  
12 accommodate. The installation slot **3** in **FIGS.1,2,3,11,12,13, 14**  
13 of these examples  
14 is milled or molded so as to open the length of the device  
15 thereby allowing the device to be easily installed onto the hose  
16 via fixed opening, e.g. **1** in **FIGS. 9,10,11,13,14** or via hinged  
17 collar, **FIGS.11** and **12**. The installation slot already described  
18 may be parallel with the central axis of the device, however the  
19 preferred orientation of same is (with the exception of  
20 **FIG.11,12** wherein the hose containment problem is solved by  
21 complete enclosure) oblique by design, thereby creating offset  
22 entry and exit shoulder points so as to help insure hose  
23 containment within the device during its employment, a typical

1 application of same described in the drawing of the retraction  
2 process **FIG.4**.

3 **FIG.4** describes an operator employing the device in a  
4 typical application, wherein **1** is the an inbound hose traveling  
5 toward and being directed onto a storage reel **2** by the device **3**  
6 in the hand of the user **4**.

7 By the user changing his hand from the running attitude of  
8 the device **FIG.5** the hose gripping attitude of the device **FIG.6**,  
9 the opposing inside ends of the device may, by the user, be  
10 leveraged against the hose **1** so as to create friction points **2**,  
11 whereby the operator can use the device to afford himself  
12 convenience in pulling hose from the reel, as a braking  
13 mechanism to slow and/or prevent hose overruns on to the reel  
14 and, in the case of an inbound hose, as an assistance in pushing  
15 the hose toward the reel during the retrieval process as per **1-**  
16 **3, 4-7** in

17 **FIG.7**. Referring still to **FIG. 7**, the device may then be  
18 returned to parallel **4**, drawn back to  
19 the original position **5** to gain another purchase via friction  
20 points **2**, and repeated as required **1-3,4-5,1-3**, etc. The action  
21 provides an effective means of overcoming friction due to the  
22 resistance, friction and drag which often overcome the reel's  
23 power source to retrieve a fully deployed hose, a condition that

1 frequently encumbers the hose retraction process.

2 **FIGS. 9,10** describe the preferred embodiments of the device  
3 installed on a hose **1** via the expansion slot **3** and contained by  
4 the diagonally opposed shoulder points **2**.

5 **FIGS. 11,12** describe a hinged or hinge-like embodiment of  
6 the device wherein one long axis side of the device is connected  
7 via hinge or flexible molding, allowing the opposite side **3** to  
8 be opened so as to allow this embodiment of the device to  
9 receive the hose **1** and then closed to contain the hose **2**,  
10 thereby affording the user the advantages and containment  
11 protections of the oblique slot embodiments described in the  
12 patentor's claims, descriptions, and elsewhere herein.

13 **FIGS. 13,14** describe embodiments of the device wherein  
14 the hose containment advantage of the off-axis installation slot  
15 angle is achieved by slot lines that are essentially parallel to  
16 the long axis of the device **3** but that originate from points on  
17 either end of the device that are slightly  
18 offset from one another **2**, thereby creating the same and  
19 desirable hose containment effect of the more obliquely designed  
20 installation slots described for the preferred embodiment and  
21 other embodiments of the device already and thoroughly  
22 described.

23 THE FOREGOING DESCRIPTION OF THE PREFERRED EMBODIMENTS AND

1 OTHER EMBODIMENTS OF THE INVENTION HAVE BEEN PRESENTED FOR THE  
2 PURPOSES OF ILLUSTRATION AND DESCRIPTION ONLY. THEY ARE NOT  
3 INTENDED TO BE EXHAUSTIVE OR TO LIMIT THE INVENTION TO THE  
4 PRECISE FORMS DISCLOSED, NOR IS IT TO BE IMPLIED BY THE  
5 FOREGOING DRAWINGS OR DESCRIPTIONS THAT THE DEVICE BE LIMITED TO  
6 FLEXIBLE HOSES OR MANUAL, HANDHELD OPERATIONS. MANY  
7 MODIFICATIONS AND VARIATIONS ARE POSSIBLE IN LIGHT OF THE ABOVE  
8 TEACHING. IT IS INTENDED THAT THE SCOPE OF THE INVENTION BE  
9 LIMITED NOT BY THESE DETAILED DESCRIPTIONS, BUT RATHER BY THE  
10 CLAIMS APPENDED HERETO.

11       ALTHOUGH THE TEXTUAL DESCRIPTION OF THE DEVICE DESCRIBES  
12 ITS APPLICATION TO FLEXIBLE HOSES AND HOSE STORAGE REELS ONLY,  
13 THE INVENTOR HEREBY NOTICES THAT THE DEVICE AND/OR VARIATIONS OF  
14 ITS EMBODIMENTS MAY AFFORD ONE OR MORE OF THESE ADVANTAGES IN  
15 THE MANAGEMENT OF ANY FLEXIBLE, LINEAR, TUBULAR, LINKED,  
16 BRAIDED, WOUND OR SOLID CONNECTING, RETRIEVAL OR DELIVERY MEANS  
17 EXAMPLED BY BUT NOT TO BE CONSTRUED TO BE LIMITED TO:

18 STEEL CABLE; WIRE ROPE; ELECTRICAL CABLE AND CORD; FIBER OPTICAL  
19 CABLE; ANY AND ALL TYPES, WEAVES, STRANDS AND BRAIDS OF NATURAL  
20 AND SYNTHETIC ROPES, TWINES AND LINES; CHAIN MOTOR CHAINS; CHAIN  
21 AND/OR ANY LINKAGE OR CONNECTION DEVICE THAT CAN BE DEFINED OR  
22 EMPLOYED AS CHAIN; HOME, GARDEN, INDUSTRIAL AND COMMERCIALY  
23 EMPLOYED WATER HOSES, AND ANY OTHER FLEXIBLE, LINEAR, DISPENSING

1 AND/OR CONNECTING AND/OR RETRIEVING INVENTION THAT, AT THE  
2 DETERMINATION OF A PROSPECTIVE USER, MAY BE MORE EFFECTVELY  
3 AND/OR EFFICIENTLY MANAGED BY THE EMPLOYMENT OF THE PREFERRED  
4 EMBODIMENT OF THE DEVICE, OR ANY EMBODIMENT OF THE DEVICE, OR  
5 ANY OTHER DEVICE THAT CAN BE DETERMINED TO BE A SIMILAR  
6 DERIVATIVE OF THE ABOVE TEACHING.

7 THE HOSE REEL(S) DEFINED AND ILLUSTRATED HEREIN ARE HEREBY  
8 CONSTRUED TO BE REPRESENTATIVE OF ANY POWER SOURCE WHICH CREATES  
9 TENSION ON ANY OF THE EXAMPLES NAMED IN THE PRECEDING PARAGRAPH  
10 WHEREBY A SITUATION IS CREATED IN WHICH THE DEVICE(S) DESCRIBED  
11 AND ILLUSTRATED HEREIN MAY, AT THE DETERMINATION OF THE USER, BE  
12 ADVANTAGEOUSLY EMPLOYED.

13 ABSTRACT OF THE DISCLOSURE:

14 A tubular collar or sleeve with flared, funneled, beveled  
15 or rounded inside edges at either end. A diagonal opening of  
16 sufficient width opens the length of the device, so as to  
17 accommodate its installation onto the variety and diameter of  
18 flexible hose which each model may be specifically designed to  
19 address. The device may be installed during the hose retraction  
20 process, availing the operator protection from contaminated hose  
21 and affording several other useful mechanical functions as well.



I CLAIM:

1. A hose management/contaminant barrier device for the purpose of providing the user an improved degree of protection and utility, the embodiment of which may be formed by machining, molding, milling, injection molding, or other means, from material(s) which may include but are not necessarily limited to: metal, molded plastic, polymers, nylon, etc., into a sleeve that may be hand-held, yet of sufficient diameter so as to accommodate the diameters and specifications of the particular hoses to which the different models of the device may be designed to apply, and flared and/or beveled at either end, and with a slot of sufficient width so as to accommodate the diameter of the hose to which the various models may be designed to apply, and which has been milled, machined, molded, and/or otherwise formed from a suitable material into an open-sided sleeve or collar, thereby permitting its installation onto the hose(s) to which its described functions are to be applied. The slot may be aligned parallel with the central axis, or, as in the preferred embodiment of the device, aligned obliquely across the central axis. The slot in the preferred embodiments is set obliquely across the central axis so as to create a more sure means of containment for a tensioned hose moving more or less at parallel through the device during the retraction process.

1           2.    The hose management and contaminant barrier device  
2   described in claim 1 for the purpose of providing the user a  
3   means by which he can partially relieve the effects of friction  
4   and lay the reel-bound hose more evenly and consistently onto  
5   the reel, and with which he can more effectively control and  
6   otherwise direct the inbound hose onto its storage reel via the  
7   most effective angle.

8           3.    The hose management/contaminant barrier device  
9   described in claim 1 for the purpose of creating friction by  
10   leveraging the opposing inside end corners of the employed  
11   device against a tensioned, flexible hose, thereby creating  
12   friction points whereby the operator can assist the retraction  
13   process by pushing the hose onto its reel during the process,  
14   and whereby the operator can also create a braking effect for  
15   the purpose of preventing powered reel over-runs or to slow a  
16   running hose.

17   Property of:    Ladd Anderson, sole inventor  
18                    4055 South 1610 East  
19                    Salt Lake City, UT 84124  
20                    Phone: 801-272-7007  
21                    Fax: 801-265-9324

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FIG. 1



FIG. 2

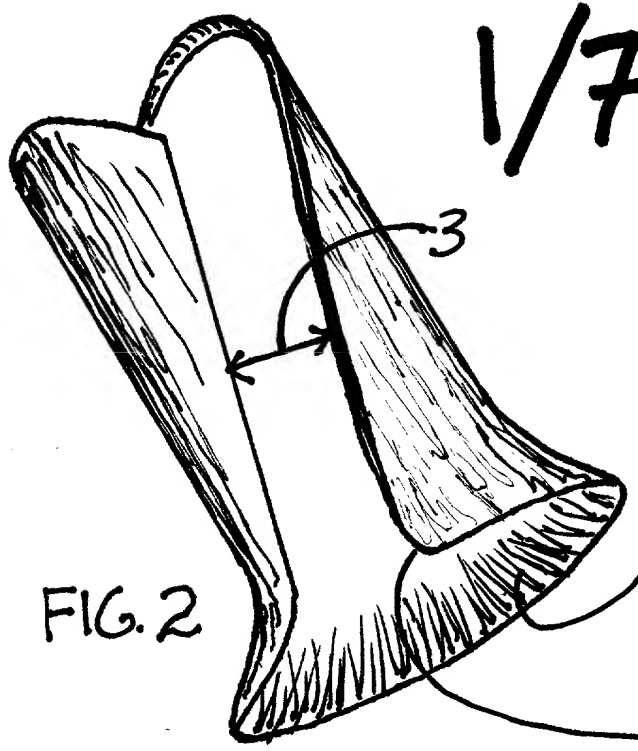
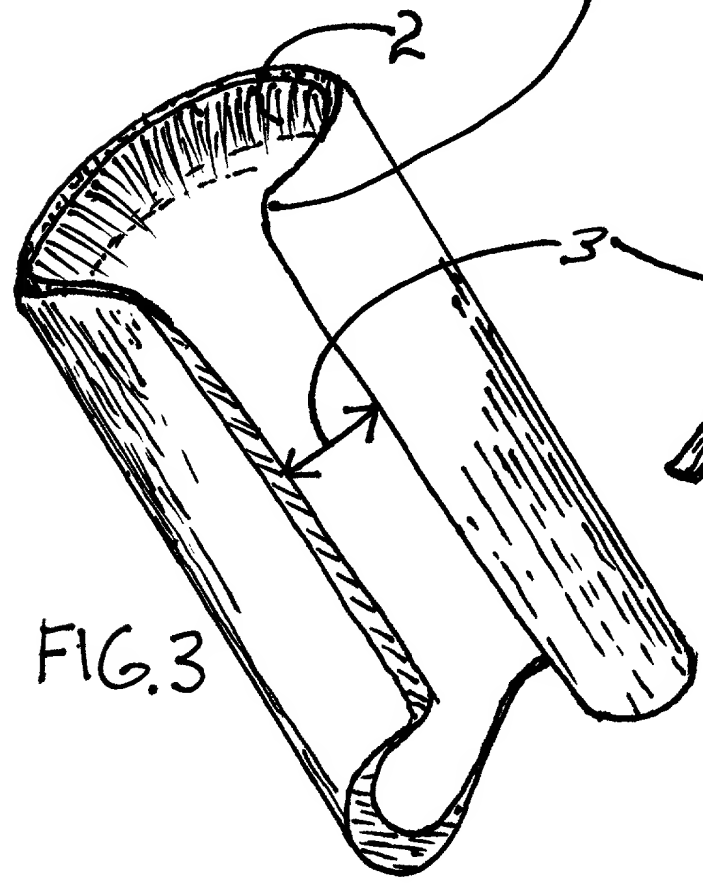


FIG. 3



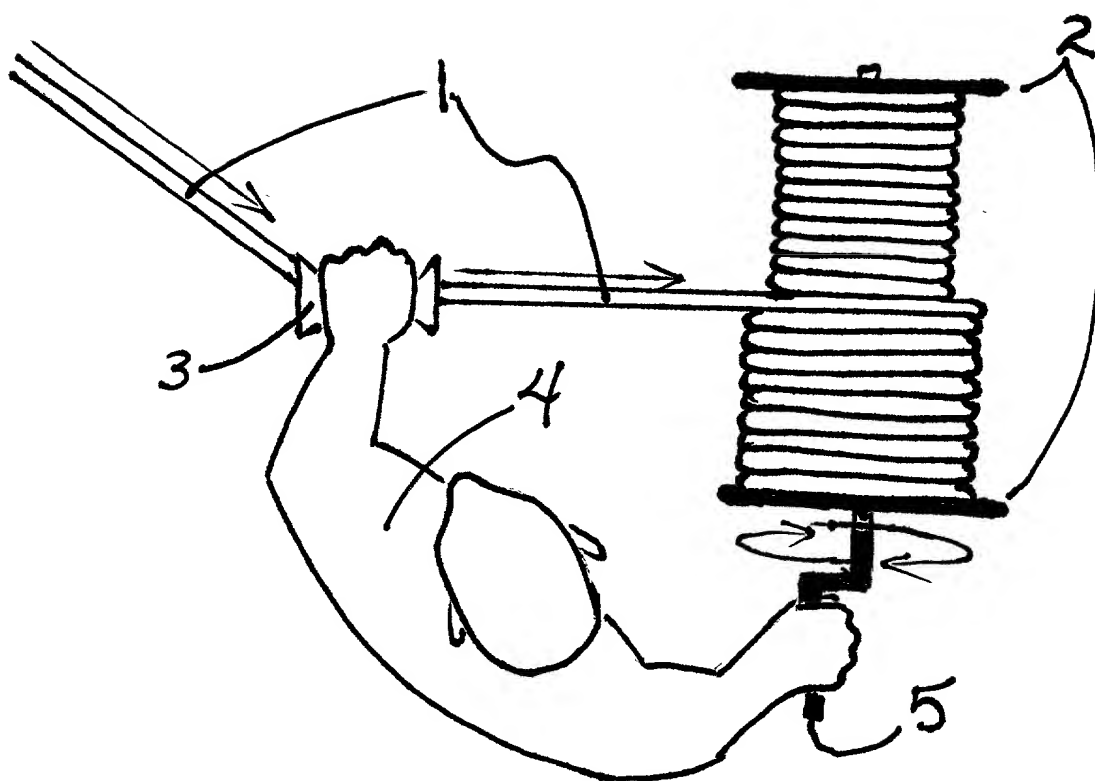
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FIG. 4

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FIG. 5

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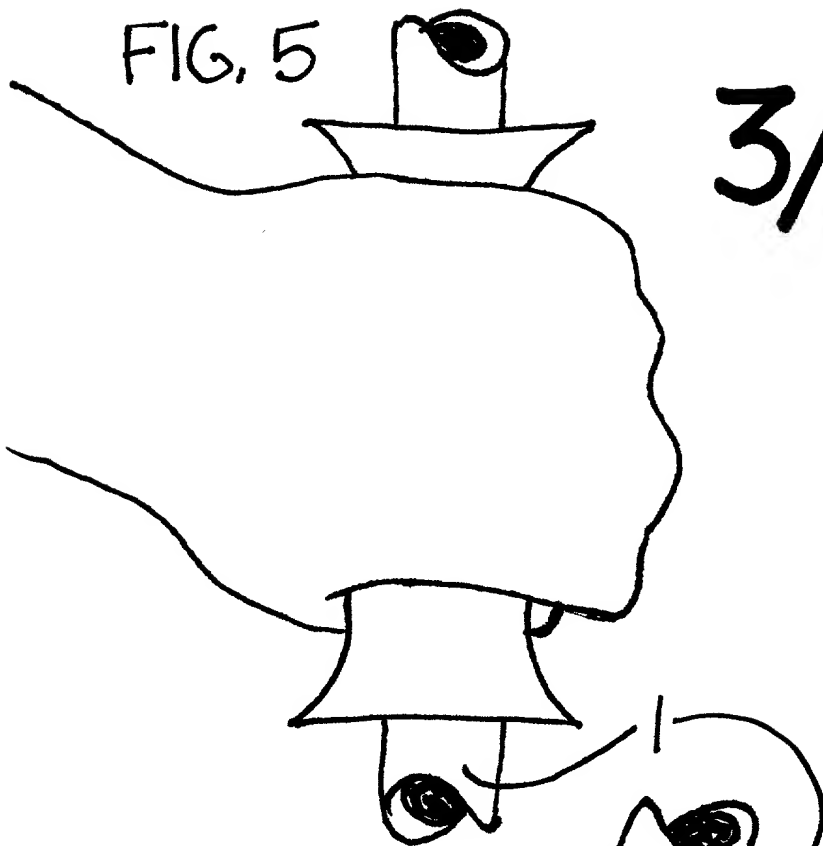
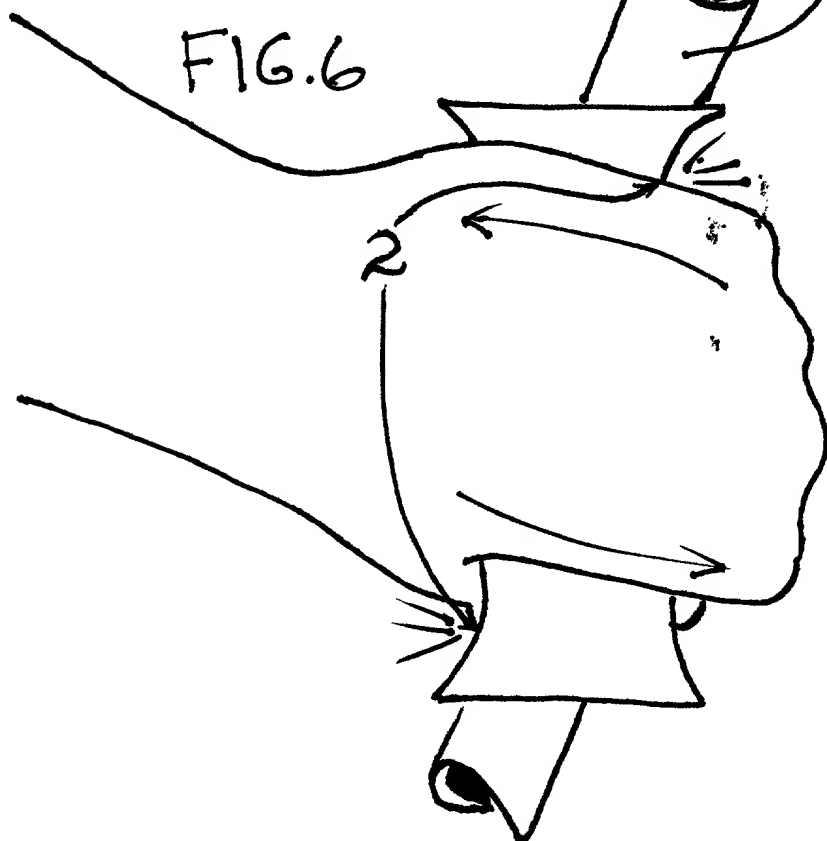


FIG. 6



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FIG. 7

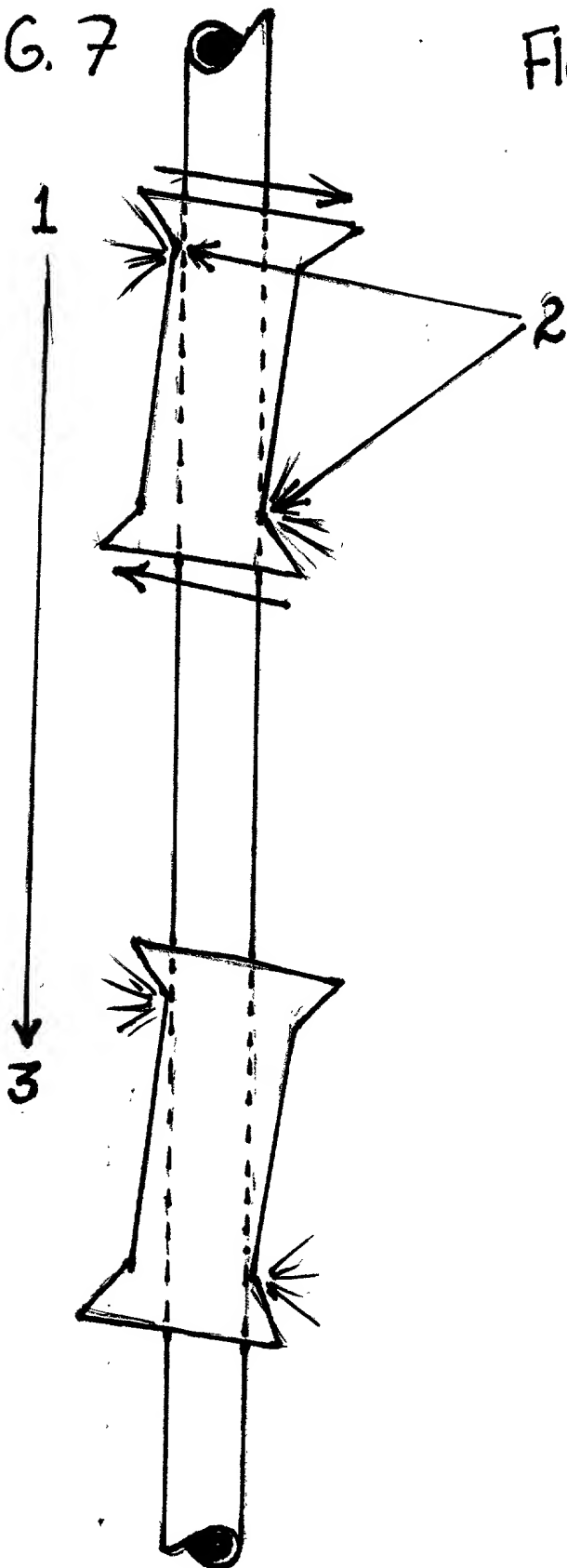
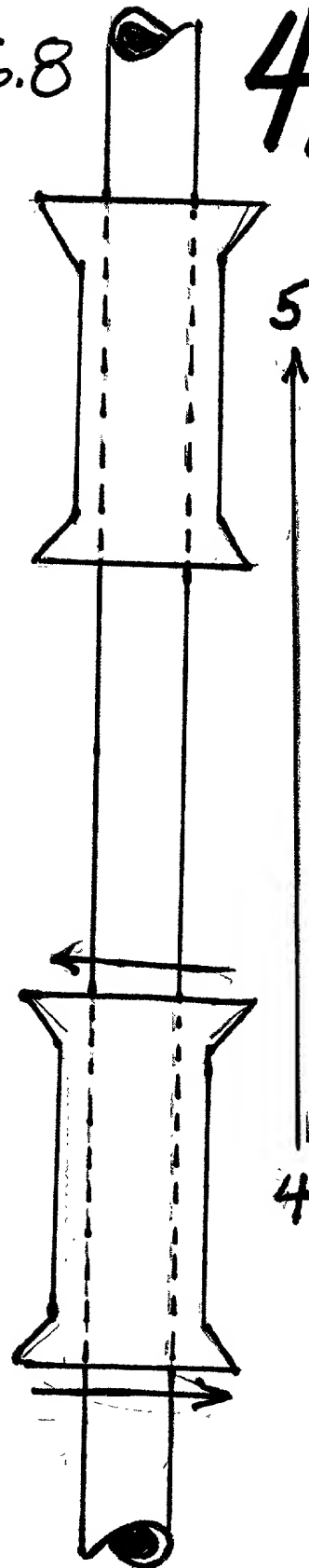
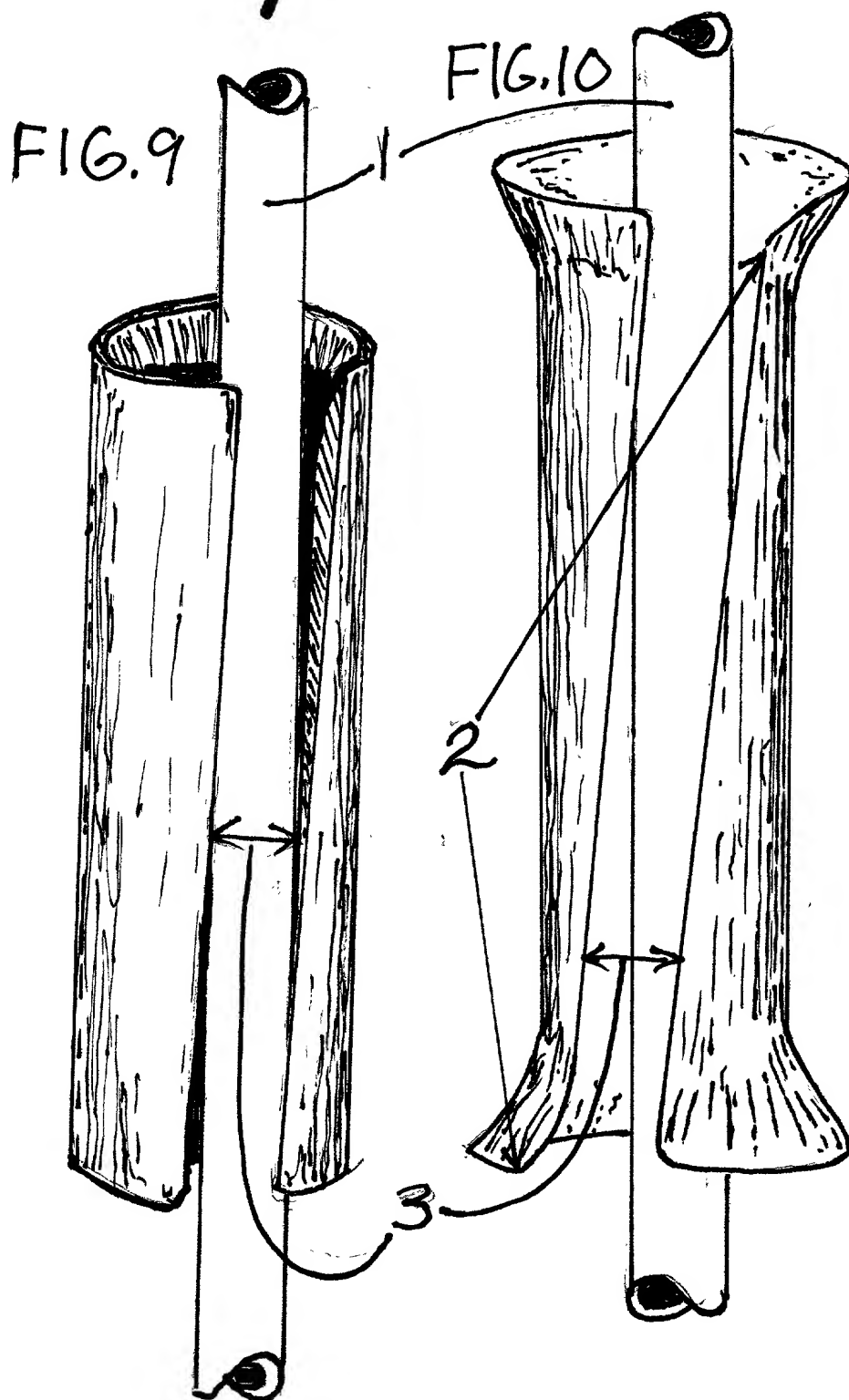


FIG. 8



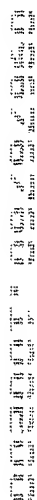
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$$\frac{5}{7}$$
$$+ \frac{5}{7}$$


$$+ \frac{6}{7}$$

FIG. 12

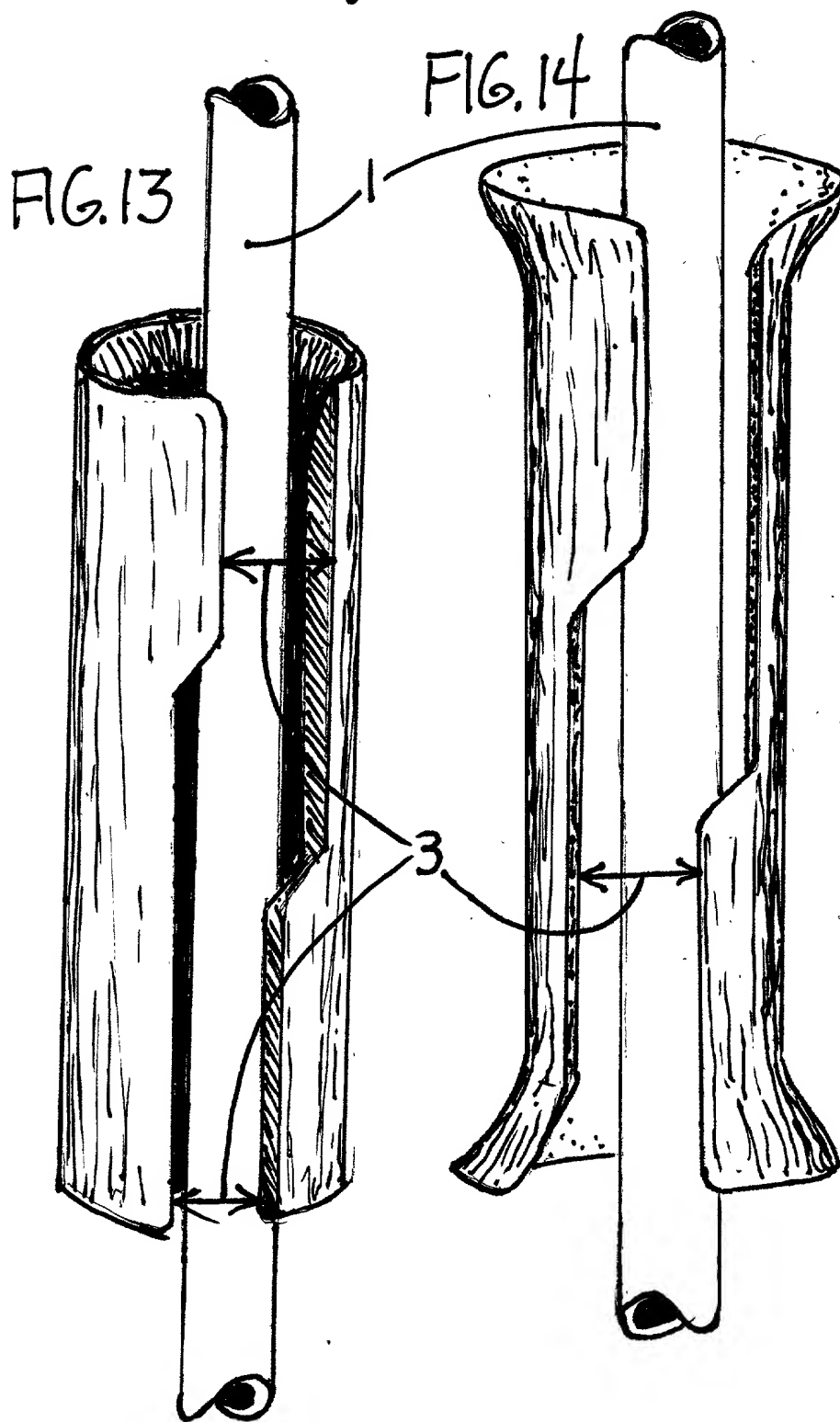


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<b>DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION</b> (37 CFR 1.63)	Attorney Docket Number	N/A
	First Named Inventor	LADD ANDERSON
	COMPLETE IF KNOWN	
	Application Number	/
	Filing Date	
	Group Art Unit	
<input checked="" type="checkbox"/> Declaration Submitted with Initial Filing	OR	<input type="checkbox"/> Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)
Examiner Name		

As a below named inventor, I hereby declare that:

My residence, post office address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**HOSE MANAGEMENT/CONTAMINATION BARRIER DEVICE**

the specification of which (Title of the Invention)

☒ is attached hereto  
OR  
☐ was filed on (MM/DD/YYYY) [ ] as United States Application Number or PCT International Application Number [ ] and was amended on (MM/DD/YYYY) [ ] (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?	
				YES	NO
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.


I hereby claim the benefit under 35 U.S.C. 119(e) of any United States provisional application(s) listed below

Application Number(s)	Filing Date (MM/DD/YYYY)

☐ Additional provisional application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

[Page 1 of 2]

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## DECLARATION

## ADDITIONAL INVENTOR(S) Supplemental Sheet Page \_\_\_ of \_\_\_

Name of Additional Joint Inventor, if any:

☐ A petition has been filed for this unsigned inventor

Given Name (first and middle [if any])

Family Name or Surname

Inventor's  
Signature

Date

Residence: City

State

Country

Citizenship

Post Office Address

Post Office Address

City

State

ZIP

Country

Name of Additional Joint Inventor, if any:

☐ A petition has been filed for this unsigned inventor

Given Name (first and middle [if any])

Family Name or Surname

Inventor's  
Signature

Date

Residence: City

State

Country

Citizenship

Post Office Address

Post Office Address

City

State

ZIP

Country

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Family Name or Surname

Inventor's  
Signature

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Residence: City

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## DECLARATION — Supplemental Priority Data Sheet

Additional foreign applications:

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?	
				YES	NO
THERE ARE NONE			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Additional provisional applications:

Application Number	Filing Date (MM/DD/YYYY)

Additional U.S. applications:

U.S. Parent Application Number	PCT Parent Number	Parent Filing Date (MM/DD/YYYY)	Parent Patent Number (if applicable)
THERE ARE NONE.			

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## DECLARATION

## REGISTERED PRACTITIONER INFORMATION (Supplemental Sheet)

Name	Registration Number	Name	Registration Number
			

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## DECLARATION — Utility or Design Patent Application

I hereby claim the benefit under 35 U.S.C. 120 of any United States application(s), or 365(c) of any PCT international application designating the United States of America, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of 35 U.S.C. 112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

U.S. Parent Application or PCT Parent Number	Parent Filing Date (MM/DD/YYYY)	Parent Patent Number (if applicable)
N/A		

☐ Additional U.S. or PCT international application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

As a named inventor, I hereby appoint the following registered practitioner(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

☐ Customer Number

OR

☐ Registered practitioner(s) name/registration number listed below

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Name	Registration Number	Name	Registration Number
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Direct all correspondence to: ☐ Customer Number or Bar Code Label ☒ Correspondence address below

Name	LADD ANDERSON				
Address	4055 So. 1610 E				
Address					
City	SALT LAKE CITY	State	UT	ZIP	84124
Country	USA	Telephone	801-272-7007	Fax	

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Name of Sole or First Inventor: ☐ A petition has been filed for this unsigned inventor

Given Name (first and middle (if any))		Family Name or Surname					
LADD		ANDERSON					
Inventor's Signature	[Signature]		Date	9/21/00			
Residence: City	SLC	State	UT	Country	USA	Citizenship	US
Post Office Address	2350 ARBOR LN., HOLLADAY, UT 84124						
Post Office Address							
City	SLC	State	UT	ZIP	84124	Country	USA

☐ Additional inventors are being named on the supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto